CONTENTS *(continued from back cover)*

Origin, distribution and morphology of serotonergic afferents to the mesencephalic trigeminal nucleus of the rat
J.C.V.M. Copray, R.S.B. Liem, G.J. Ter Horst and J.D. van Willigen (The Netherlands) 97
Neuronal degeneration in hippocampus and cerebellum of mutant spastic Han-Wistar rats
E. Wagemann, R. Schmidt-Kastner, F. Block and K.-H. Sontag (F.R.G.) 102
Down-regulation of protein kinase C blocks 5-HT-induced enhancement in *Hermissenda* B photoreceptors
T. Crow, J. Forrester, M. Williams, M. N. Waxham and J. Neary (U.S.A.) 107
Reduction of adenosine A_1-receptors in the perforant pathway terminal zone in Alzheimer hippocampus
D. Jaarsma, J. Sebens and J. Korf (The Netherlands) 111
Effect of insulin on serotonin, 5-hydroxyindole-acetic acid, norepinephrine, epinephrine and corticosterone contents in chick
S. Mahata (India) 115
Effects of KN-62, a specific inhibitor of calcium/calmodulin-dependent protein kinase II, on long-term potentiation in the rat hippocampus
I. Ito, H. Hidaka and H. Sugiyama (Japan) 119
α4 is a major acetylcholine binding subunit of cholinergic ligand affinity-purified nicotinic acetylcholine receptor from rat brains
H. Nakayama, T. Nakashima and Y. Kurogochi (Japan) 122
NGF enhances neurite regeneration from nerve-transected terminals of young adult and aged mouse dorsal root ganglia in vitro
H. Horie, Y. Bando, H. Chi and T. Takenaka (Japan) 125
Effects of morphine administration on catecholamine levels in rat brain; specific reduction of epinephrine concentration in hypothalamus
M. Ota, I.N. Mefford, M. Naoi and M. Linnoila (U.S.A., Japan) 129
Inhibition of high affinity L-glutamic acid uptake into rat cortical synaptosomes by the conformationally restricted analogue of glutamic acid, *cis*-1-aminocyclobutane-1,3-dicarboxylic acid
E. Fletcher, K. Mewett, C. Drew, R. Allan and G.R. Johnston (Australia) 133
Conditioned reinforcing effects of 8-hydroxy-2-(di-*N*-propylamino) tetralin: involvement of 5-hydroxytryptamine 1*A* and D_1 dopamine receptors
T.S. Shippenberg (F.R.G.) 136
Thermoperiodic influences on plasma melatonin rhythms in the lizard *Tiliqua rugosa*: effect of thermophase duration
B.T. Firth, D.J. Kennaway and I. Belan (Australia) 139
Contralateral degeneration in the cat spinal trigeminal nucleus following unilateral retrogasserian trigeminal rhizotomy
L.E. Westrum and M.A. Henry (U.S.A.) 143
Periaqueductal gray spike trains recorded in frontal or horizontal mesencephalic brain slices from the rat
G. Sandner and G.D. Scala (France) 147
Reduced levels of calcitonin gene-related peptide-like immunoreactivity in human brain vessels after subarachnoid haemorrhage
L. Edvinsson, R. Ekman, I. Jansen, J. McCulloch, A. Mortensen and R. Uddman (Sweden, Denmark, U.K.) 151
Acidic fibroblast growth factor-like immunoreactivity in brain of Alzheimer patients
I. Tooyama, H. Akiyama, P.L. McGeer, Y. Hara, O. Yasuhara and H. Kimura (Japan, Canada) 155
Neurotoxicity caused by glutamate after subcritical hypoxia is prevented by 6-cyano-7-nitroquinoxaline-2,3-dione (CNQX): an in vitro study using rat hippocampal neurons
E. Kohmura, K. Yamada, T. Hayakawa and A. Kinoshita (Japan) 159
Palytoxin: a potent stimulator of catecholamine release from cultured bovine adrenal chromaffin cells
A. Nakanishi, M. Yoshizumi, K. Morita, Y. Murakumo, H. Houchi and Motoo Oka (Japan) 163
Human neuroblastoma cells treated with aluminium express an epitope associated with Alzheimer's disease neurofibrillary tangles
S.P. Guy, D. Jones, D.M.A. Mann and R.F. Itzhaki (U.K.) 166
Digoxigenylated wheat germ agglutinin visualized with alkaline phosphatase-labeled anti-digoxigenin antibodies – a new, sensitive technique with the potential for single and double tracing of neuronal connections
R.W. Veh (F.R.G.) 169
Methylnaloxonium diffuses out of the rat brain more slowly than naloxone after direct intracerebral injection
R.L. Schroeder, M.B. Weinger, L. Vakassian and G.F. Koob (U.S.A.) 173
Distribution of nerve growth factor receptor immunoreactivity in the human hippocampus
J. Kerwin, C. Morris, A. Oakley, R. Perry and E. Perry (U.K.) 178
PET studies of [^{18}F]methyl-MK-801, a potential NMDA receptor complex radioligand
J. Blin, A. Denis, T. Yamaguchi, C. Crouzel, E.T. MacKenzie and J.C. Baron (France) 183
Craniovascular application of capsaicin activates nociceptive thalamic neurones in the cat
A.S. Zagami and G.A. Lambert (Australia) 187
A muscarine-activated voltage-independent K channel in cultured bullfrog sympathetic neurones
K. Tanaka, K. Koyano and K. Kuba (Japan) 191
Place recognition responses of neurons in monkey hippocampus
T. Ono, K. Nakamura, M. Fukuda and R. Tamura (Japan) 194

Sensory innervation of the mystacial pad fur of the ferret
T.M. Mosconi and F.L. Rice (U.S.A.) 199
Abnormal endogenous amino acid release in brain slices from vitamin B-6 restricted neonatal rats
T.R. Guilarte (U.S.A.) 203
Reduced NMDA receptor-ion channel function in the vitamin B-6 restricted neonatal rat brain.
T.R. Guilarte (U.S.A.) 207
The calibration of ^{35}S or ^{32}P with ^{14}C-labeled brain paste or ^{14}C-plastic standards for quantitative autoradiography using LKB Ultrofilm or Amersham Hyperfilm
J.A. Miller (U.S.A.) 211
Convergent inputs to *Octopus* oculomotor neurones demonstrated in a brain slice preparation
R. Williamson and B.U. Budelmann (U.S.A., U.K.) 215
Regulation of polyamine and magnesium inhibition of the *N*-methyl-D-aspartate (NMDA) receptor ionophore complex
A.I. Sacaan and K.M. Johnson (U.S.A.) 219
L-DOPA stimulates the release of [^{3}H]γ-aminobutyric acid in the basal ganglia of 6-hydroxydopamine lesioned rats
J. Aceves, B. Floran, D. Martinez-Fong, A. Sierra, S. Hernandez and S. Mariscal (Mexico) 223
Reduction of $GABA_A$ receptor-mediated inhibition by the non-NMDA receptor antagonist 6-cyano-7-nitroquinoxaline-2,3-dione in cultured neurons of rat brain
W. Jarolimek and U. Misgeld (F.R.G.) 227
Human retinoblastoma Y79 cells contain both insulin-specific mRNA and insulin-binding sites
A. Das, B. Pansky, G.C. Budd and T.W. Reid (U.S.A.) 231
Prolonged infusion of quinolinic acid into rat striatum as an excitotoxic model of neurodegenerative disease
Z. Susel, T.M. Engber, S. Kuo and T.N. Chase (U.S.A.) 234
Increased spectrin proteolysis in fibroblasts from aged and Alzheimer donors
C. Peterson, P. Vanderklish, P. Seubert, C. Cotman and G. Lynch (U.S.A.) 239
Evidence for inhibitory amino acid receptors on guinea pig medial vestibular nucleus neurons in vitro
P.F. Smith, C.L. Darlington and J.I. Hubbard (New Zealand) 244
Somatotopic distribution of corneal afferent neurons in the guinea pig trigeminal ganglion
J.T. Keller, H.C. Bubel, A.H. Wander and B.E. Tierney (U.S.A.) 247
The possible involvement of tetrodotoxin-sensitive ion channels in ischemic neuronal damage in the rat hippocampus
Y. Yamasaki, K. Kogure, H. Hara, H. Ban and N. Akaike (Japan) 251
Elimination of transient dendritic spines in ipsilaterally projecting retinal ganglion cells in rats with neonatal unilateral thalamotomy
K.C. Lau, K. -F. So, D. Tay and L.S. Jen (Hong Kong) 255
Differential effects of protein kinase inhibitors on pre-established long-term potentiation in rat hippocampal neurons in vitro
H. Matthies Jr., T. Behnisch, H. Kase, H. Matthies and K.G. Reymann (Germany, Japan) 259
Antagonism at the glycine site on the NMDA receptor reduces spinal nociception in the rat
A.H. Dickenson and E. Aydar (U.K., Turkey) 263
The antinociceptive effect of intrathecally administered adenosine analogs in mice correlates with the affinity for the A_1-adenosine receptor
R. Karlsten, C. Post, I. Hide and J.W. Daly (Sweden, U.S.A.) 267
A monoclonal antibody to common acute lymphoblastic leukemia antigen (neutral endopeptidase) immunostains senile plaques in the brains of patients with Alzheimer's disease
M. Sato, K. Ikeda, S. Haga, D. Allsop and T. Ishii (Japan) 271

Author index 275

Announcement 278